This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1 - 62 cancelled.

1. A virtual headset apparatus, facilitating isolation of first and second channel signals of audio material to be heard by a listener without need for placement of earphones or other audio transducer apparatus immediately adjacent the ears of a listener, comprising:

a parametric ultrasonic signal source supplying a first parametric channel signal including a first modulated ultrasonic carrier signal and a second parametric channel signal including a modulated ultrasonic carrier signal;

a first electro-acoustical emitter portion electrically coupled to said signal source and configured to create a first parametric ultrasonic signal beam directable to a first ear of a listener, conveying the first modulated ultrasonic carrier signal including said first parametric channel signal to be parametrically reproduced at the first ear isolated from reflections from a surrounding environment and from said second modulated ultrasonic carrier signal at the first ear; and

a second electro-acoustical emitter portion electrically coupled to said signal source and configured to create a second parametric ultrasonic signal beam directable to a second ear of a listener, conveying the second modulated ultrasonic carrier signal including a second parametric channel signal to be parametrically reproduced at the second ear isolated from reflections from a surrounding environment and from said first modulated ultrasonic carrier signal at the second ear;

the apparatus providing said first and second channel signals to said first and second ears so that audio material parametrically reproduced at the other of the first and second ear will be reduced sufficiently in sound pressure level at the other of the first and second ears that the first and second channel signals directed to each of the first and second ears, respectively, will predominate, and the apparatus can provide at least one of: (a) isolation of the listener from reflections in a listening environment; and, (b) facilitation of spatialization directly from said parametric channel signals without providing transducers immediately adjacent each ear.

2. The virtual headset of claim 1, wherein the second parametric channel signal is different from the first parametric channel signal

3. The virtual headset of claim 2, wherein the first and second parametric channel signals contain left and right audio channel information.

4. The virtual headset of claim 1, wherein one of said electro-acoustical emitter portions includes an electrically sensitive and mechanically responsive (ESMR) film.

5. The virtual headset of claim 1, further comprising phase-controlling circuitry to enable differential phase controlling of the first and second parametric ultrasonic beams as they are emitted from said first and second electro-acoustical emitter portions such that the first parametric ultrasonic wave beam may be directed at the first ear of the listener, wherein the electro-acoustical emitter structure includes multiple isolated emitting portions, at least two being driven by the first parametric ultrasonic channel signal, wherein at least one isolated emitting portion is driven with a signal having a phase differential as compared to the other isolated emitting portions to enable beam steering of the parametric ultrasonic beam.

6. The virtual headset of claim 1, further comprising a target element and a tracking circuit coupled to the electro-acoustical emitter portions for coordinating the first orientation of the first parametric ultrasonic beam to follow movement of the target element.

7. The virtual headset of claim 6, wherein the target element is the listener.

8. The virtual headset of claim 6, wherein the target element is worn by the listener to enable the tracking circuit to locate the position of the listener's ears.

9. The virtual headset of claim 5, wherein the phase controlling of the emitter portion generating at least the first parametric ultrasonic beam adjusts the phase differential in response to the movement of a target element to enable the first parametric ultrasonic wave to follow movement of the target element.

10. The virtual headset of claim 9, wherein a directional support structure for the electro-acoustical emitter is configured to rotate such that the orientation of an emission surface will adjust in response to the movement of the target element to enable the first parametric ultrasonic beam to follow movement of the target element.

11. A parametric loudspeaker system for enabling acoustic differentiation of amplitudes of audio material arriving at coordinated first and second reception points within a listening location, comprising: a. a parametric ultrasonic signal source supplying at least a first and a second parametric ultrasonic channel signal, each channel signal having an ultrasonic carrier signal and at least one sideband containing audio information; and b. an electro-acoustical emitter capable of orienting at least a first parametric ultrasonic wave corresponding to the first parametric ultrasonic channel signal along a first orientation for dominant reception at the first reception at an acoustic level substantially greater than at the second reception point, and a second parametric ultrasonic wave corresponding to the second parametric ultrasonic channel signal along a second orientation for dominant reception at the second reception point at an acoustic level substantially greater than at the first reception point, thereby enabling acoustic differentiation of amplitudes arriving at each reception point.

12. The parametric loudspeaker system of claim 11, wherein the respective first and second reception points are the first and second ears of a listener.

13. The parametric loudspeaker system of claim 11, wherein localized sound is generated at more than one listening location.

14. The parametric loudspeaker system of claim 11, further comprising phase controlling circuitry to enable differential phase controlling of at least the first and second parametric ultrasonic waves from the electro- acoustical emitter such that the first parametric ultrasonic wave may be directed at the first reception point and the second parametric ultrasonic wave at the second reception point, wherein the electro- acoustical emitter includes multiple isolated emitting portions, at least two being driven by the parametric ultrasonic signal source, wherein the first and second parametric ultrasonic channel signals applied to at least one isolated emitting portion have a phase differential as compared to the first and second parametric ultrasonic channel signals applied to other isolated emitting portions to enable beam steering of the first parametric ultrasonic wave along the first orientation and the second parametric ultrasonic wave along the second orientation.

15. The parametric loudspeaker system of claim 14, wherein the phase controlling of the parametric ultrasonic waves and the electro-acoustical emitter are configured for directing the first and second parametric ultrasonic waves; towards the first and second reception points of more than one listening location.

16. A method for enabling binaural listening to audio material by a listener without need for earphones or other physical audio producing devices attached to the listener, the method comprising:

a. generating a first parametric ultrasonic signal by parametrically modulating a first channel audio input signal with an ultrasonic carrier signal;

b. generating a second parametric ultrasonic signal by parametrically modulating a second channel audio input signal with the ultrasonic carrier signal;

c. applying the first and second parametric ultrasonic signals to an electro acoustic emitter while employing an orientation control technique at an emission surface of the emitter to direct a first parametric ultrasonic wave towards a left ear of the listener, and a second parametric ultrasonic wave towards the right ear of the listener; and

d. emitting the first and second parametric ultrasonic waves simultaneously from the electro-acoustic emitter, resulting in a corresponding first decoupled audio wave being detected predominately at the left ear of the listener, and a second decoupled audio wave being detected predominately at the right ear of the listener, thereby enabling acoustic differentiation of amplitudes arriving at each ear.

17. The method of claim 16, wherein the employing of an orientation control technique more specifically includes performing differential phase controlling of the first and second parametric ultrasonic waves from the electro-acoustical emitter, further comprising driving at least two isolated emitting portions of the electro-acoustical emitter with the first and second parametric ultrasonic signals, wherein the first and second parametric ultrasonic signals applied to at least one isolated emitting portion have a phase differential as compared to the first and second

parametric ultrasonic channel signals applied to other isolated emitting portions to enable beam steering of the parametric ultrasonic waves.

18. A method for creating a virtual headset minimizing cross-talk between output waves of at least a first audio output device and a second audio output device, the method comprising:

a. generating a first parametric ultrasonic signal by parametrically modulating a first channel audio input signal with an ultrasonic carrier signal;

b. generating a second parametric ultrasonic signal by parametrically modulating a second channel audio input signal with the ultrasonic carrier signal;

c. directing the first audio output device towards a first reception point of a listening location;

d. directing the second audio output device towards a second reception point of the listening location;

e. applying the first parametric ultrasonic signal to the first audio output device, resulting in a first parametric ultrasonic wave which arrives at the first receiving point at an acoustic level sufficiently greater than at the second receiving point to enable acoustic differentiation of amplitudes arriving at each reception point; and

f. simultaneously applying the second parametric ultrasonic signal to the second audio output device, resulting in a second parametric ultrasonic wave which arrives at the second receiving point at an acoustic level sufficiently greater than at the first receiving point to enable acoustic differentiation of amplitudes arriving at each reception point.

19. The method of claim 18, wherein the respective first and second reception points are left and right ears of a listener.

20. The method of claim 19, further comprising: tracking the location of the listener; and, beam-steering the output waves of the first and second audio output devices towards said left and right ears.